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Specialty Chemicals Dyes

Your vision. Our experience. The perfect chemisty.

KODAK Specialty Chemicals is a U.S.-based facility with decades of experience in custom synthesis with high-quality production serving diverse markets and a long, trusted history of providing scale to innovation. Particularly with heterocycles and specialty polymers.

Great ideas mean little without the capacity to execute them

Working with Kodak allows you to draw on our expertise in process development, design for manufacturing, and statistical process control. In other words, we can take a process from the "white board" into production.

We're flexible enough to produce the smallest and largest batch sizes, which gives you flexibility of choice. And our broad product portfolio includes 1,500 approved manufacturing processes. Plus, confidential custom manufacturing services are available.

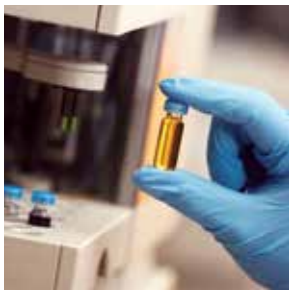
Great results give no advantage if they're not repeatable

A commitment to safety, health, the environment, high quality, and high technology are more than just our goals. They're part of our DNA. Kodak has designed and manufactured chemicals for over 100 years, a heritage we simply could not have built without a firm set of standards.

Our Six Sigma Black Belt focus on quality and decades of expertise with specialty chemicals development and manufacturing means Kodak knows how to get things right the first time, and get them right consistently, batch after batch.

Great companies are judged by the relationships they build

A relationship with Kodak is a collaboration with a U.S. manufacturer that has global capabilities. It's a relationship built on a century-long tradition of making the complex simpler. And it's built on trust.



IRD85 (Product Code 8246340)

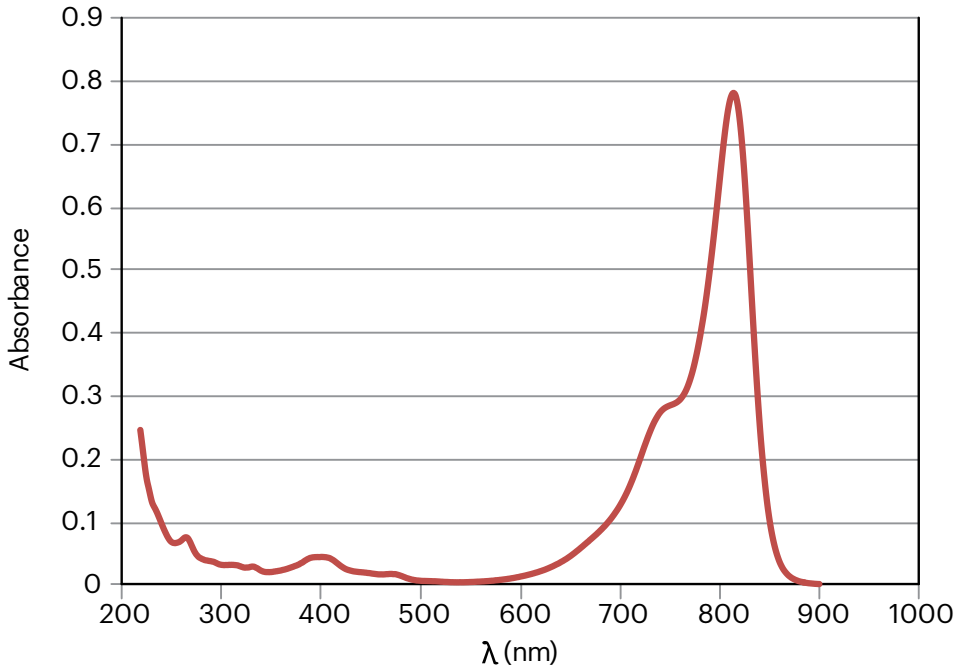
High purity IR dye powder with high absorption between 800 and 850 nm. Suitable for coating applications requiring absorption of IR radiation. Excellent visible light transmission. Soluble in most industrial solvents.

Chemical Class: Cyanine (Indole)

Properties:
- MW 755
- MP >173°C
- Decomposes without melting

UV:
- λ max: 814 nm in methanol
- Absorptivity: 327 L/g cm

Specifications:
- Assay by HPLC > 98.0 Area%
- Volatiles <2.0 wt%



*Sample concentration: 2.26 mg/L in methanol



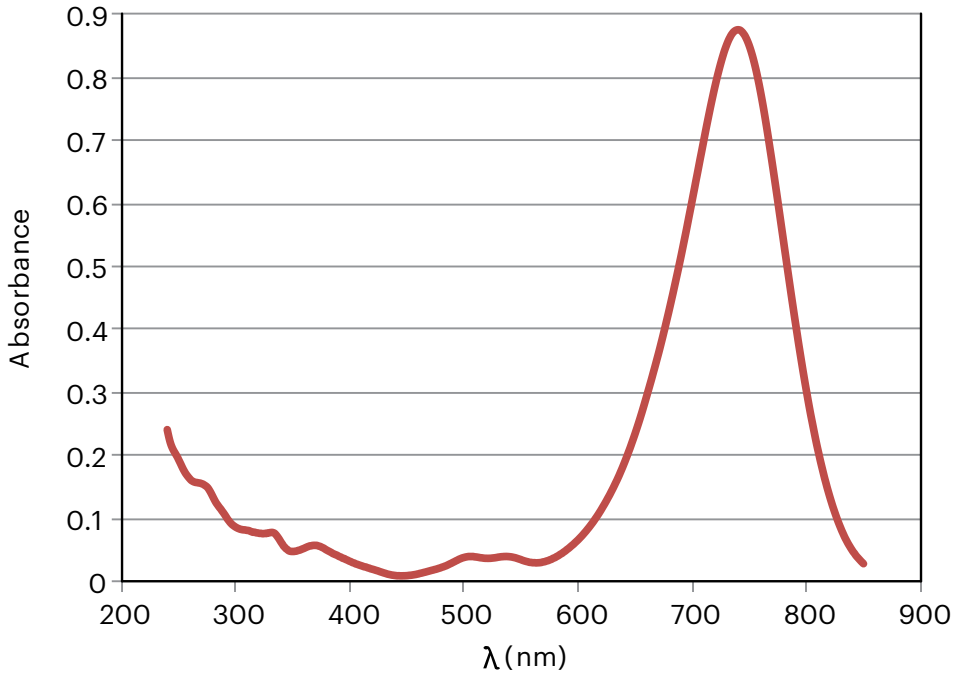
IRD22 (Product Code 1692334)

High purity IR dye powder with absorption between 680 and 780 nm. Suitable for coating applications requiring absorption of IR radiation. Excellent visible light transmission. Water soluble IR dye.

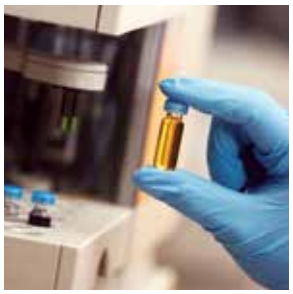
Chemical Class: Cyanine (Indole)

Properties:
- MW 1209
- MP 268°C

UV:
- λ max: 740 nm in methanol + acetic acid
- Absorptivity: 109 L/g cm



*Sample concentration: 8.04 mg/L in methanol + acetic acid



IRD05 (Product Code 1450790)

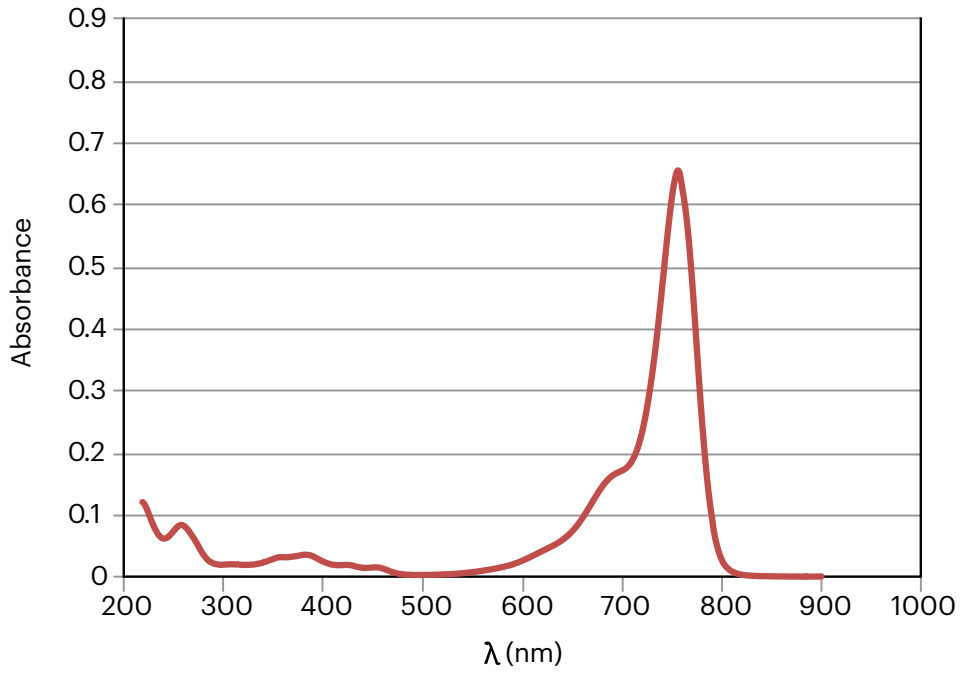
High purity IR dye powder with absorption between 730 and 777 nm. Suitable for coating applications requiring absorption of IR radiation. Excellent visible light transmission. Soluble in most industrial solvents.

Chemical Class: Cyanine (Benzothiazole)

Properties:
- MW 702
- MP >173°C
- Decomposes without melting

UV:
- λ max: 756 nm in methanol

Specifications:
- Absorptivity at Lambda max: 340 L/g cm



*Sample concentration 1.80 mg/L in methanol



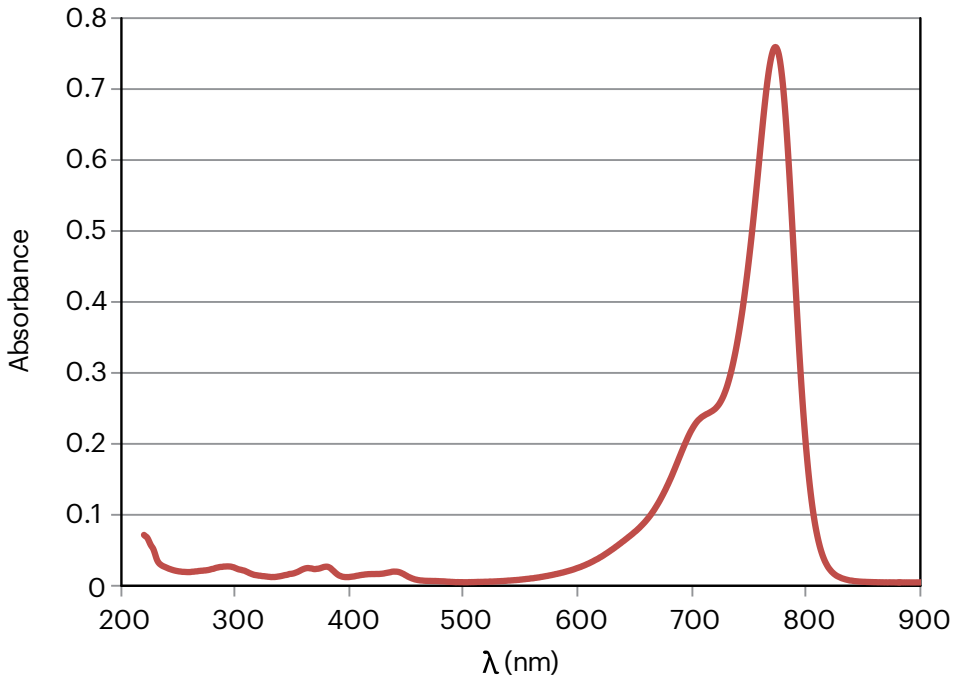
IRD67 (Product Code 1567718)

High purity IR dye powder with absorption between 745 and 794 nm. Suitable for coating applications requiring absorption of IR radiation. Excellent visible and UV light transmission. Soluble in most industrial solvents.

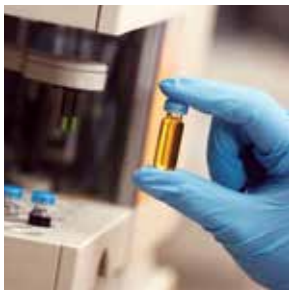
Chemical Class: Cyanine (Indole)

Properties: • MW 655

UV: • λ max: 775 nm in methanol
• Absorptivity: 420 L/g cm



*Sample concentration: 1.77 mg/L in methanol



IRD75 (Product Code 1921014)

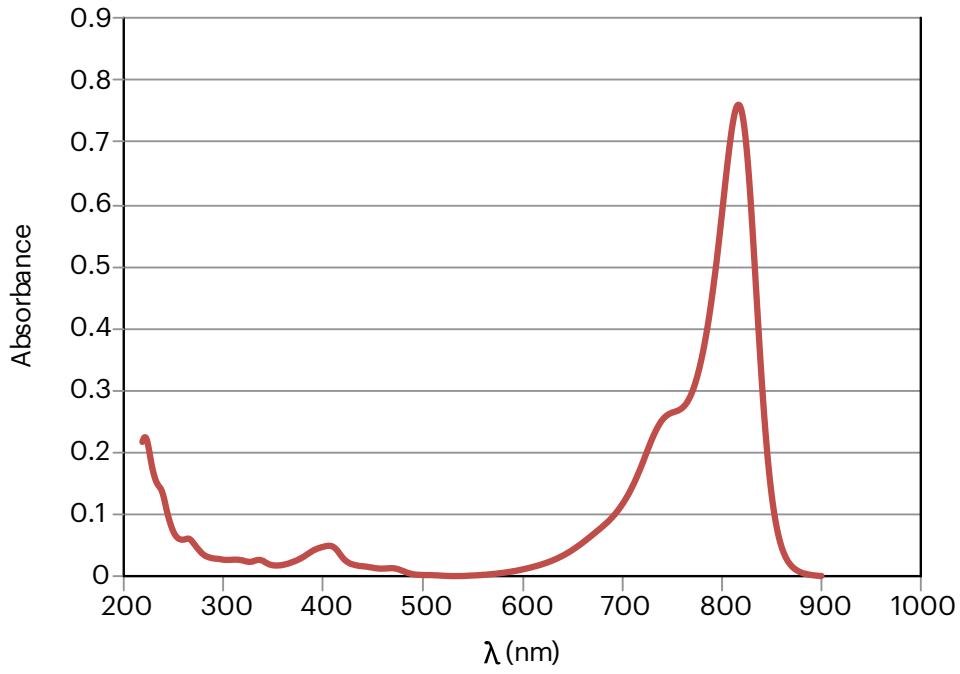
High purity IR dye powder with high absorption between 800 and 850 nm. Suitable for coating applications requiring absorption of IR radiation. Excellent visible light transmission. Soluble in most industrial solvents.

Chemical Class: Cyanine (Indole)

Properties: • MW 928

UV: • λ max: 817 nm in methanol
• Absorptivity: 297 L/g cm

Specifications: • Potency by UV/Vis > 96.0 Wt%



*Sample concentration: 2.56 mg/L in methanol



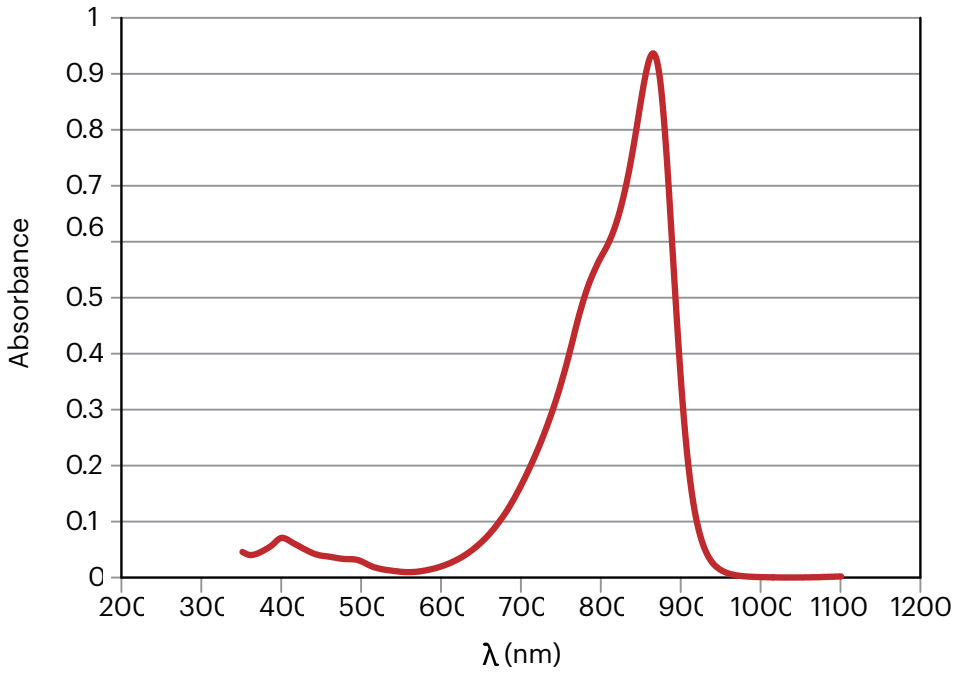
IRD04 (Product Code 1171859)

R&D high purity IR dye powder with high absorption between 770 and 895 nm. Suitable for coating applications requiring absorption of IR radiation. Excellent visible light transmission. Soluble in most industrial solvents.

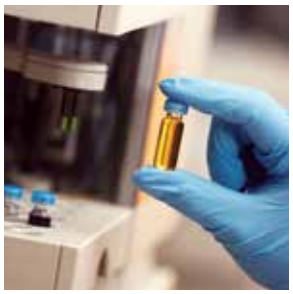
Chemical Class: Cyanine (Indole)

Properties: • MW 799

UV: • λ max: 864 nm in acetone
• Absorptivity: 194 L/g cm



*Sample concentration: 4.81 mg/L in Acetone



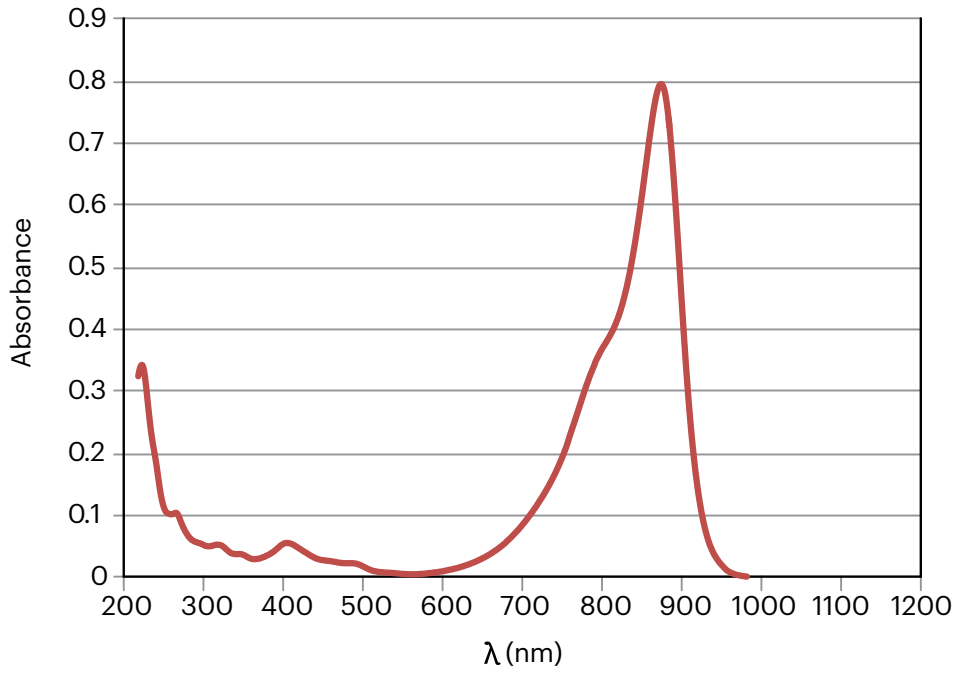
IRD79 (Product Code 1504737)

High purity IR dye powder with absorption between 815 and 900 nm. Suitable for coating applications requiring absorption of IR radiation. Excellent visible light transmission. Water soluble IR dye.

Chemical Class: Cyanine (Indole)

Properties: • MW 1097

UV: • λ max: 875 nm in methanol
• Absorptivity: 178 L/g cm



*Sample concentration: 4.48 mg/L in methanol



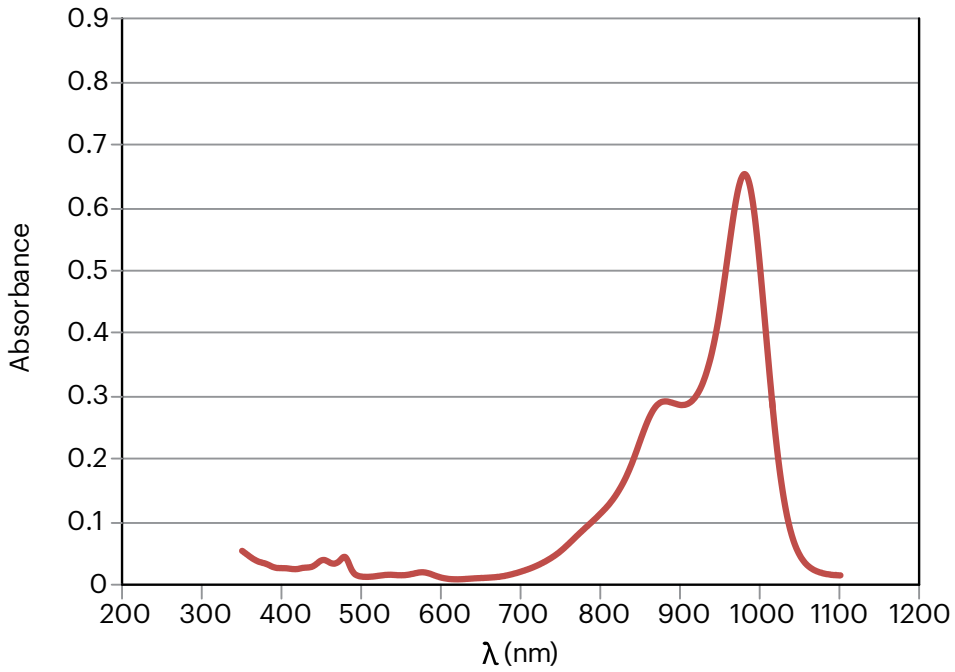
IRD73 (Product Code 1242262)

High purity IR dye powder with high absorption between 900 and 1000 nm. Suitable for coating applications requiring absorption of deeper IR radiation. Excellent visible light transmission. Soluble in most industrial solvents.

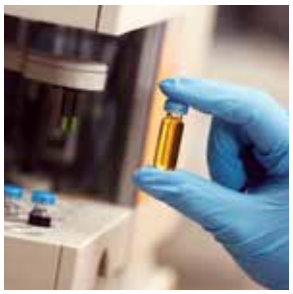
Chemical Class: Cyanine (Indole)

Properties: • MW 654

UV: • λ max: 980 nm in acetone
• Absorptivity: 311 L/g cm



*Sample concentration: 2.10 mg/L in acetone



IRD50 (Product Code 1467992)

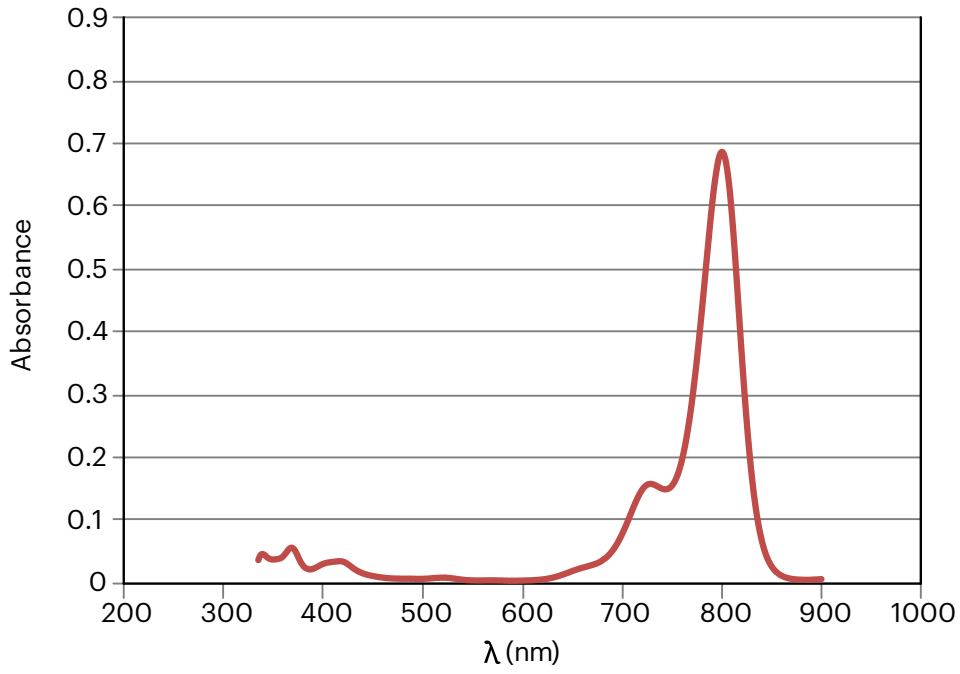
High purity IR dye powder with absorption between 775 and 820 nm. Suitable for coating applications requiring absorption of IR radiation. Excellent visible light transmission. Stable in solvent coatings. Soluble in most industrial solvents.

Chemical Class: Squarylium

Properties: • MW 931

UV: • λ max: 800 nm in methyl ethyl ketone

Specifications: • Absorptivity at Lambda max: 170 L/g cm



*Sample concentration: 3.84 mg/L in methyl ethyl ketone



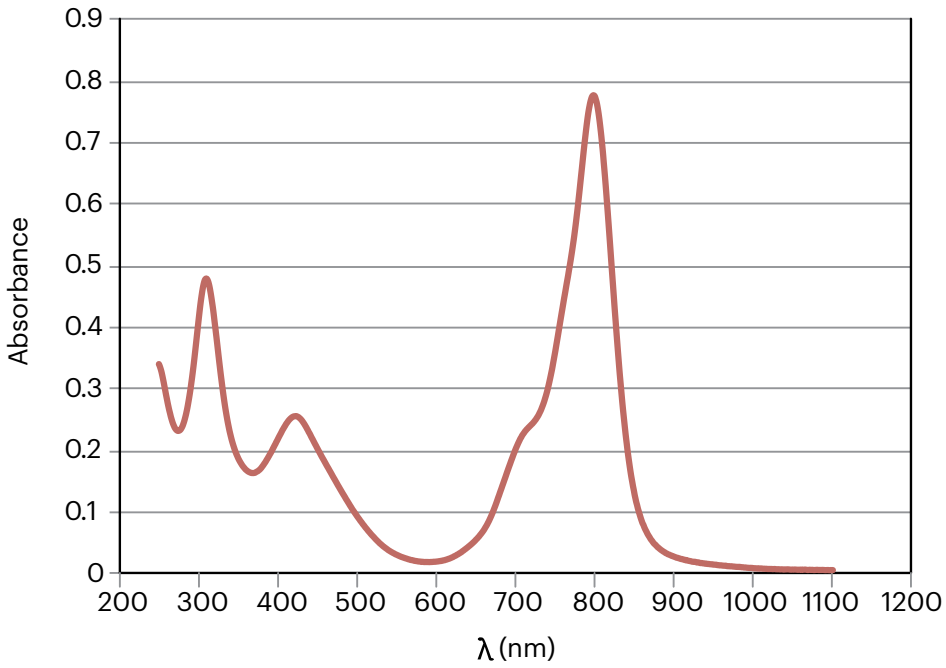
IRD031 (Product Code 1925932)

High purity IR pigment powder with absorption between 750 and 830 nm. Suitable for coating applications requiring absorption of IR radiation. Also exhibits UV absorption. Resistant to light fade.

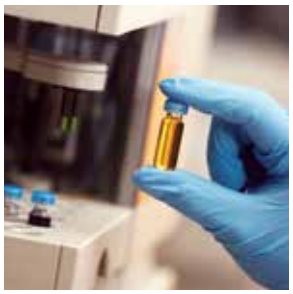
Chemical Class: Phthalocyanine

Properties: • MW 648

UV: • λ max: 798 nm in concentrated sulfuric acid
• Absorptivity: 131 L/g cm



*Sample concentration: 5.91 mg/L in sulfuric acid



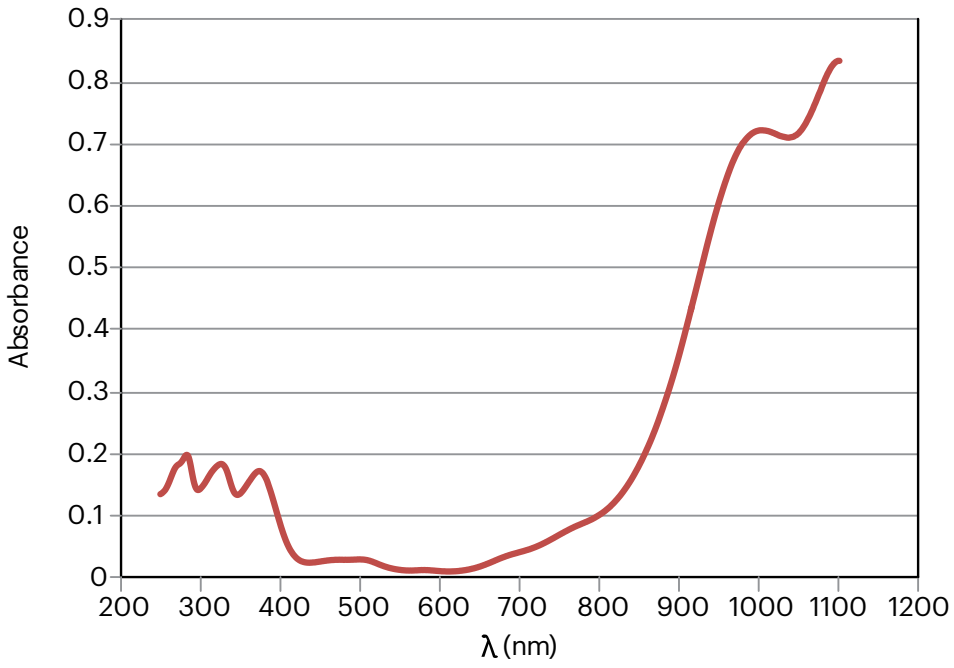
IRD86 (Product Code 1891399)

High purity IR dye powder with absorption between 900 and 1100 nm. Suitable for coating applications requiring absorption of deeper IR radiation. Also exhibits UV absorption. Excellent visible light transmission. Soluble in acetone, methyl ethyl ketone and methylene choride.

Chemical Class: Diiminium

Properties:
- MW 1392
- MP>265 °C

UV:
- λ max: 1098 nm in methylene chloride
- Absorptivity: 70 L/g cm



*Sample concentration: 10.64 mg/L in methylene chloride



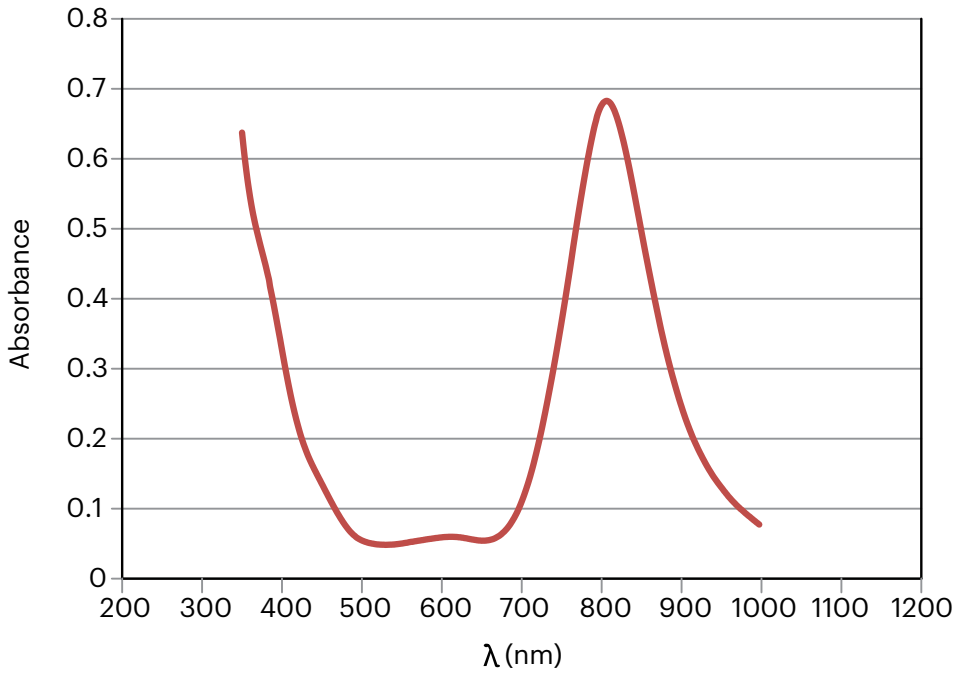
DIRP807 (Product Code 1556026)

R&D Nano particulate. 10% aqueous dispersion of highly stable IR chromophore. Stabilized with a proprietary dispersant (25% relative to the IR chromophore). Suitable for coating or inkjet applications requiring absorption of IR radiation.

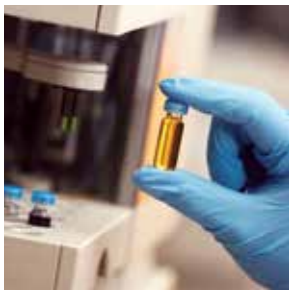
Properties:
- Aqueous dispersion
- 10% chromophore concentration
- D50 = 10 nm†

† As determined by Dynamic Light Scattering

UV:
- λ max: 828 nm in distilled, deionized H_2O
- Absorptivity: 4.3 L/g cm



*Sample concentration: 194.232 mg/L in Distilled, Deionized H_2O



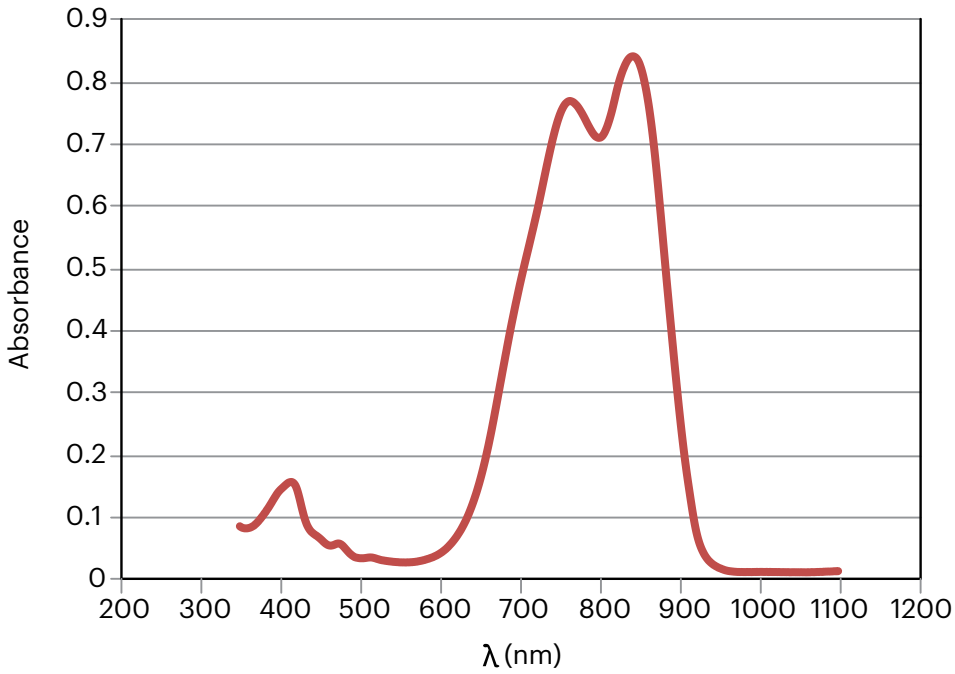
DIRP843 (Product Code 1406032)

R&D Nano particulate. 10% aqueous dispersion of stable IR chromophore. Stabilized with a proprietary dispersant (25% relative to the IR chromophore). Suitable for coating or inkjet applications requiring absorption of IR radiation.

Properties:
- Aqueous dispersion
- 10% chromophore concentration
- D50 = 10 nm†

† As determined by Dynamic Light Scattering

UV:
- λ max1: 843 nm in distilled, deionized H_2O
- Absorptivity: 10.10 L/g cm
- λ max2: 764 nm in distilled, deionized H_2O
- Absorptivity: 9.23 L/g cm



*Sample concentration: 83.396 mg/L in Distilled, Deionized H_2O

For further information please visit www.kodak.com/go/specialtychemicals or contact us at specialtychemicals@kodak.com.

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